

Title (en)
A METHOD FOR CONTROLLING A POWER ASSEMBLY

Title (de)
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Title (fr)
PROCÉDÉ DE COMMANDE D'UN ENSEMBLE D'ALIMENTATION

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Application
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Priority
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Abstract (en)
The invention relates to a method for controlling a power assembly comprising a fuel cell unit and an electric energy storage system. The method comprises:- predicting (S1) a power demand for power delivery from the power assembly over a prediction horizon,- calculating (S2) costs associated with controlling the power assembly according to at least two different control scenarios during the prediction horizon, wherein the at least two different control scenarios include a first control scenario in which the fuel cell unit is turned off, and a second control scenario in which the fuel cell unit is turned on. For each of said control scenarios, the associated cost includes at least a cost associated with an expected ability or non-ability of the power assembly to deliver power according to the predicted power demand, a cost associated with fuel consumption, and a cost associated with fuel cell degradation,- comparing (S3) the calculated costs of the respective at least two control scenarios to obtain a comparison result,- selecting (S4) one of the at least two control scenarios based on the comparison result, and- controlling (S5) the power assembly according to the selected control scenario.

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CPC (source: EP KR US)
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Citation (applicant)
US 2016046204 A1 20160218 - OH JUNGSIK [KR]

Citation (search report)
• [I] US 2016046204 A1 20160218 - OH JUNGSIK [KR]
• [A] DE 102019110343 A1 20201022 - E GO REX GMBH [DE]
• [I] ZHOU YANG ET AL: "Real-time cost-minimization power-allocating strategy via model predictive control for fuel cell hybrid electric vehicles", ENERGY CONVERSION AND MANAGEMENT, ELSEVIER SCIENCE PUBLISHERS, OXFORD, GB, vol. 229, 10 December 2020 (2020-12-10), XP086466493, ISSN: 0196-8904, [retrieved on 20201210], DOI: 10.1016/J.ENCONMAN.2020.113721

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